

33. The method of any of claims 1, 8, and 23 wherein the PYY agonist has a potency in at least one of a food intake or gastric emptying assay greater than NPY.

REMARKS

Claims 1, 4-12, 23, 29, and 31-33 are under examination in the application as being drawn to the elected group and species. Claim 33 has been amended merely to conform to elected subject matter, not for reasons of patentability, and Applicants reserve the right to pursue the non-elected subject matter.

These claims have all been rejected under 35 USC §103(a) as being unpatentable over Malaisse-Lagae *et al.* in view of both Yoshinaga *et al.* and Allen *et al.* The Examiner states that "it would have been obvious . . . at the time the invention was made to use the PYY and a PYY agonist, e.g., PYY[3-36], in the method of treating obesity as taught by Malaisse-Lagae *et al.* with a reasonable expectation of success. One would have been motivated to do so because PYY belongs to the pancreatic polypeptide family and PYY[3-36] is a fragment of PYY" The Examiner notes that Malaisse-Lagae fails to teach (i) the use of PYY or a PYY agonist and (ii) the relative potency of a PYY agonist and NPY. With all due respect, Applicants contend that these references cannot be related to teach or suggest Applicants' invention.

First, it is not relevant whether Malaisse-Lagae shows decreased food intake and reduced weight gain in *ob/ob* mice, because PP is not the same peptide as a PYY or PYY agonist of the invention. The Examiner's reliance on PYY being a member of the pancreatic polypeptide family to render Applicants' invention obvious is misplaced. The Examiner concedes that Malaisse-Lagae fails to teach (i) the use of PYY or a PYY agonist. Clearly, the members of the pancreatic polypeptide family do not share common functionality, as shown in the references cited by the Examiner and in Applicants' specification (see e.g., Table 1), so one of skill in the art could not use the combination of cited references to arrive at Applicants' invention.

For example, Allen teaches that infusion of PYY slows gastric emptying, but that another member of the pancreatic polypeptide family, NPY, "has no significant effect on the rate of gastric emptying" (abstract, page 255). Allen also teaches that a third member of the family, PP, is ineffective at slowing gastric emptying: ". . . infusion of the [PP] peptide in man did not alter

gastric emptying" (page 261, column 2). Thus, the Examiner's premise that "one would have been motivated to [use a PYY or agonist in the method of Malaisse-Lagae] with a reasonable expectation of success" is simply not upheld by the cited references. Thus, although PP, PYY, and NPY are all members of the pancreatic polypeptide family, they behave quite differently with respect to gastric emptying actions. PYY slows gastric emptying, but NPY and PP do not, so one of skill in the art would not have a reasonable expectation of success in substituting these peptides for any given purpose. Therefore, the findings of Malaisse-Lagae with respect to PP are not relevant to Applicants' invention, and one of skill in the art reading Allen or Yoshinaga would be discouraged from combining the PP results of Malaisse-Lagae with other members of the pancreatic polypeptide family.

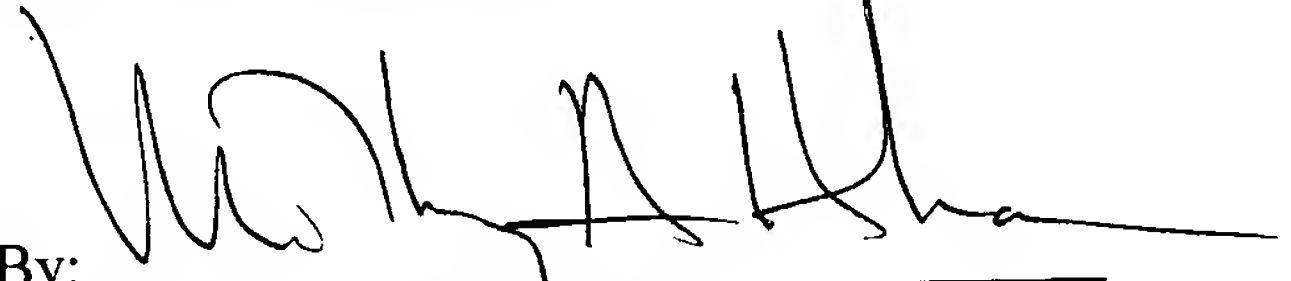
For at least the reasons stated above, the Examiner's arguments using Yoshinaga and Allen regarding the relative potency of PYY with respect to NPY in a gastric emptying assay are moot. Applicants respectfully request that the rejection of the claims under §103 be withdrawn. The claims are believed to be in condition for allowance, and such action is requested.

The Examiner has objected to claims 23 and 33 because they either recite unelected subject matter or depend from non-elected claims. Applicants have amended claim 33, but do not understand the Examiner's rejection to claim 23. Clarification is requested.

No fee is believed due with this submission. However, should any fee become due or credit become payable during the pendency of these proceedings, the Commissioner is authorized to charge or credit the same to Deposit Account Number 010535.

Respectfully submitted,

AMYLIN PHARMACEUTICALS, INC.

By: 

Molly A. Holman, Ph.D.
Registration No.: 40,022

Dated: 10/1/02

Amylin Pharmaceuticals, Inc.
9373 Towne Centre Drive
San Diego, California 92121

Telephone: (858) 552-2200
Facsimile: (858) 552-1936

MARK-UP OF AMENDED CLAIM

33. (Once Amended) The method of any of claims 1, 8, [13, 20,] and 23 wherein the PYY agonist has a potency in at least one of a food intake or gastric emptying assay greater than NPY.